

Idaho Energy Buzz

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DOE Grants Fund Industrial Pump Assessments

By Linda Cawley, IDWR Information Specialist

Some of Idaho's largest industrial facilities are saving millions of kilowatt-hours of electricity as the result of extensive testing and implementing energy-saving recommendations by the Idaho Energy Division.

For the past two years, Jeff Brooks, energy specialist with the Energy Division, has been conducting industrial pump system assessments for several industrial facilities, both in Idaho and at out-of-state locations.

"The cumulative electricity demand and energy savings results thus far amount to more than 650 kilowatts of peak demand reduction and 8.3 million kilowatt hours saved annually," says Brooks.

"For comparison, the cumulative electricity demand and energy savings achieved are comparable to the total demand of two average sized supermarkets, and roughly equal to the annual energy consumption of four supermarkets or 275 Idaho homes."

In-kind funding

In October 2005 the Energy Division received a \$90,000 "Industries of the Future" grant from the U.S. Department of Energy. The grant included J.R. Simplot and the Amalgamated Sugar companies as Industrial Grant partners that provided "in-kind" funding for grant activities, personnel training and time, new equipment expenditures, or other associated costs.

Last year the Energy Division received another \$90,000 grant to continue these activities with new industrial partners – Con Agra (Lamb Weston) and Davis Company Foods International, the parent company of the Jerome Cheese Company.

A portion of the first grant was used to purchase sophisticated hydraulic, electric, and mechanical measurement equipment that Brooks uses to establish the performance characteristics of large industrial pumping systems.

Pump assessments

At each facility Brooks assesses four or five pumping systems over a three- or four-day period. Using the information from the tests, the system is analyzed against its theoretical performance capability and its ideal operating potential – that is, if the system were replaced with new state-of-the-art equipment. Brooks also uses DOE's Pump System Assessment Tool software that estimates theoretical energy savings.

Using assessment data, Brooks discusses the findings with the client along with recommended improvements, and estimated energy savings and economic impacts for

each recommendation. These reports are then used as the basis for deciding whether or not to pursue the recommendations. Brooks also contracts with, and oversees, consultants who provide steam system assessments for the plants as part of the overall grant contract.

During the past year Brooks completed assessments at nine plants and traveled to Simplot facilities in North Dakota and Wyoming. These trips are coordinated with other state energy offices in a peer exchange effort to show how the Energy Division works with its client partners. Additional visits are planned in 2007 in Utah, Minnesota, South Dakota and Wyoming, as well as more Idaho facilities.